

Application No.: 10/052,758

Attorney Docket No.: TSNMNP00100

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

In the claims

1-2. (cancelled)

3. (withdrawn): The septal defect occluder of Claim 1, wherein the frame is made from a metal sheet having a plurality of slits.

4. (withdrawn): The septal defect occluder of Claim 1, wherein the frame is made from at least one metal wire.

5. (cancelled)

6. (withdrawn): The septal defect occluder of Claim 1, wherein the biodegradable/biocompatible member comprises a tube having a small diameter distal end, a small diameter center, and a small diameter proximal end with two larger diameter regions disposed between the center and the proximal and distal ends.

7. (cancelled)

8. (withdrawn): The septal defect occluder of Claim 1, wherein the biodegradable/biocompatible member comprises a plurality of threads.

9. (withdrawn): The septal defect occluder of Claim 8, wherein the plurality of threads form a spider web-like structure when the metal frame is not constrained.

10-12. (cancelled)

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13. (withdrawn): The septal defect occluder of Claim 11, wherein the frame is comprised of a metal sheet having a plurality of slits.

14. (withdrawn): The septal defect occluder of Claim 11, wherein the frame is comprised of at least one metal wire.

15. (cancelled)

16. (withdrawn): The septal defect occluder of Claim 11, wherein the biodegradable/biocompatible member comprises a tube having a small diameter distal end, a small diameter center, and a small diameter proximal end with two larger diameter regions disposed between the center and the proximal and distal ends.

17. (cancelled)

18. (withdrawn): The septal defect occluder of Claim 11, wherein the biodegradable/biocompatible member is comprised of a plurality of threads.

19. (withdrawn): The septal defect occluder of Claim 18, wherein the plurality of threads form a spider web-like structure when the metal frame is not constrained.

20. (cancelled)

21. (withdrawn): A septal defect occluder comprising:
a support member having a first inflatable ring, a second inflatable ring and a membrane joined to said first and second rings at a common center thereof; and
an adhesive material adapted to fill said first and second rings upon deployment of said support member in a septal defect.

22. (withdrawn): The septal defect occluder of Claim 21, wherein said support member is comprised of a biodegradable/biocompatible member.

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23. (cancelled)

24. (new): A septal defect occluder comprising:

a shape memory frame with a proximal end, a mid point and a distal end wherein the frame can be constrained to fit within catheter, and when not constrained forms a first and a second umbrella;

said first umbrella between said proximal end and said midpoint of said shape memory frame;

said first umbrella having a plurality of ribs radiating out from a center of said memory frame and bending toward said midpoint of said shape memory frame;

said second umbrella between said distal end and said midpoint of said shape memory frame; and

said second umbrella having a plurality of ribs radiating out from a center of said memory frame and bending toward said midpoint of said shape memory frame.

25. (new): The apparatus of claim 24 wherein said first and second umbrella further consists of a cover.

26. (new): The apparatus of claim 25 wherein said cover is comprised of biodegradable and/or biocompatible material.

27. (new): The apparatus of claim 24 wherein the frame is made from a metal tube having a plurality of slits.

28. (new): The apparatus of claim 24 wherein the frame is comprised of a Nickel Titanium Alloy material.

29. (new): The apparatus of claim 24 further including a first circular sheet placed over the distal end of the frame and a second circular sheet placed over the proximal end of

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the frame wherein said first and said second circular sheet is comprised of biodegradable and/or biocompatible material.

30. (new): The apparatus of claim 24 wherein said biodegradable and/or biocompatible material is comprised of a copolymer of galactide and lactide.

31. (new): A septal defect occluder comprising:

a shape memory frame with a proximal end, a mid point and a distal end wherein the frame can be constrained to fit within catheter; and when not constrained forms a first and a second umbrella;

said first umbrella between said proximal end and said midpoint of said shape memory frame;

said first umbrella having a plurality of ribs radiating out from a center of said memory frame and bending toward said midpoint of said shape memory frame;

said second umbrella between said distal end and said midpoint of said shape memory frame;

said second umbrella having a plurality of ribs radiating out from a center of said memory frame and bending toward said midpoint of said shape memory frame; and

said proximal end is releasably attached to a deployment member.

32. (new): The apparatus of claim 31 wherein said first and second umbrella further consists of a cover.

33. (new): The apparatus of claim 32 wherein said cover is comprised of biodegradable and/or biocompatible material.

34. (new): The apparatus of claim 32 wherein the frame is made from a metal tube having a plurality of slits.

35. (new): The apparatus of claim 32 wherein the frame is comprised of a Nickel Titanium Alloy material.

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36. (new): The apparatus of claim 32 further including a first circular sheet placed over the distal end of the frame and a second circular sheet placed over the proximal end of the frame wherein said first and said second circular sheet is comprised of biodegradable and/or biocompatible material.

37. (new): The apparatus of claim 32 wherein said biodegradable and/or biocompatible material is comprised of a copolymer of galactide and lactide.

38. (new): A method of occluding a septal defect comprising the steps of:
accessing the right side of the heart via a catheter;
advancing the catheter through a septal defect;
advancing a septal defect occluder having proximal and distal ends with a shape memory frame and a biodegradable/biocompatible member through the catheter;
allowing the distal end of the occluder to form a preset shape in the left side of the heart;
withdrawing the catheter and the occluder slowly until the distal end contacts the heart tissue around the opening of the defect;
withdrawing the catheter until the occluder is fully deployed in the heart and the proximal end has formed its preset shape;
removing the catheter from the patient;
allowing the body to degrade the biodegradable member and cover the frame with native tissue.